AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A digital subscriber line (DSL) communication device, comprising:

a receiver for developing a received signal; and

a digital signal processor (DSP) configured to perform layer two error detection in the receiver by computing a frame check sequence (FCS) on each frame of said received signal.

2. (Previously Presented) The apparatus as defined in claim 1, further comprising means for saving the adaptive parameters of an adaptive device located within said receiver, and calculated by said DSP, if said frame check sequence indicates that said received signal is error free.

3. (Previously Presented) The apparatus as defined in claim 1, further comprising means for using existing parameters of an adaptive device located within said receiver if said frame check sequence indicates that said received signal contains errors.

4. (Previously Presented) The apparatus as defined in claim 1, wherein said DSL device operates in a multipoint environment.

5. (Previously Presented) The apparatus as defined in claim 1, wherein said DSL device operates in a half duplex environment.

6. (Previously Presented) The apparatus as defined in claim 1, wherein said DSL device operates in a full duplex environment.

7. (Previously Presented) The apparatus as defined in claim 1, wherein said DSL device operates in an asymmetrical duplex environment.

8. (Previously Presented) The apparatus as defined in claim 1, wherein said layer two error detection resides in layer one of the OSI seven layer model.

9. (Previously Presented) The apparatus as defined in claim 2, wherein said means for saving the adaptive parameters of an adaptive device located within said receiver resides in layer one of the OSI seven layer model.

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10. (Previously Presented) A method for updating adaptive parameters in a digital subscriber line (DSL) communication device, comprising the steps of:

developing, in a receiver, a received signal; and

performing, in a digital signal processor (DSP) located in the receiver, layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal.

11. (Previously Presented) The method as defined in claim 10, further comprising the step of saving the adaptive parameters of an adaptive device located within said receiver and calculated by said DSP if said frame check sequence indicates that said received signal is error free.

12. (Previously Presented) The method as defined in claim 10, further comprising the step of using existing parameters of an adaptive device located within said receiver if said frame check sequence indicates that said received signal contains errors.

13. (Previously Presented) The method as defined in claim 10, wherein said DSL device operates in a multipoint environment.

14. (Previously Presented) The method as defined in claim 10, wherein said DSL device operates in a half duplex environment.

15. (Previously Presented) The method as defined in claim 10, wherein said DSL device operates in a full duplex environment.

16. (Previously Presented) The method as defined in claim 10, wherein said DSL device operates in an asymmetrical duplex environment.

17. (Previously Presented) The method as defined in claim 10, wherein said step of performing layer two error detection occurs in layer one of the OSI seven layer model.

18. (Previously Presented) The method as defined in claim 11, wherein said step of saving the adaptive parameters of an adaptive device located within said receiver occurs in layer one of the OSI seven layer model.

19. (Previously Presented) A computer readable medium having a program for updating adaptive parameters in a digital subscriber line (DSL) communication device, the program comprising:

means for developing, in a receiver, a received signal; and

means for performing, in a digital signal processor (DSP) located in the receiver, layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal.

20. (Previously Presented) The program as defined in claim 19, further comprising means for saving the adaptive parameters of an adaptive device located within said receiver and calculated by said DSP if said frame check sequence indicates that said received signal is error free

21. (Previously Presented) The program as defined in claim 19, further comprising means for using existing parameters of an adaptive device located within said receiver if said frame check sequence indicates that said received signal contains errors.

22. (Previously Presented) The program as defined in claim 19, wherein said DSL device operates in a multipoint environment.

23. (Previously Presented) The program as defined in claim 19, wherein said DSL device operates in a half duplex environment.

24. (Previously Presented) The program as defined in claim 19, wherein said DSL device operates in a full duplex environment.

25. (Previously Presented) The program as defined in claim 19, wherein said DSL device operates in an asymmetrical duplex environment.

26. (Previously Presented) The program as defined in claim 19, wherein said means for performing layer two error detection occurs in layer one of the OSI seven layer model.

27. (Previously Presented) The program as defined in claim 20, wherein said means for saving the adaptive parameters of an adaptive device located within said receiver occurs in layer one of the OSI seven layer model.

28. (Previously Presented) The apparatus as defined in claim 2, wherein said frame check sequence is used to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, an echo-canceller, an adaptive gain device, and a timing loop.

29. (Previously Presented) The apparatus as defined in claim 2, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.

30. (Previously Presented) The method as defined in claim 11, further comprising the step of using said frame check sequence to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, an echo-canceller, an adaptive gain device, a and timing loop.

31. (Previously Presented) The method as defined in claim 11, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.

32. (Previously Presented) The program as defined in claim 20, wherein said frame check sequence is used to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, an echo-canceller, an adaptive gain device, and a timing loop.

33. (Previously Presented) The program as defined in claim 20, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.

34. (Previously Presented) A digital subscriber line (DSL) communication device, comprising:

a receiver means for developing a received signal;

a digital signal processor (DSP) means configured to perform layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal; and

means for saving the adaptive parameters of an adaptive device located within said receiver means, and calculated by said DSP means, if said frame check sequence indicates that said received signal is error free.

35. (Previously Presented) The apparatus as defined in claim 34, wherein said DSL device operates in a multipoint environment.

36. (Previously Presented) The apparatus as defined in claim 34, wherein said DSL device operates in a half duplex environment.

37. (Previously Presented) The apparatus as defined in claim 34, wherein said DSL device operates in a full duplex environment.

38. (Previously Presented) The apparatus as defined in claim 34, wherein said DSL device operates in an asymmetrical duplex environment.

39. (Previously Presented) The apparatus as defined in claim 34, wherein said means for saving the adaptive parameters of an adaptive device located within said receiver means resides in layer one of the OSI seven layer model.

40. (Previously Presented) The apparatus as defined in claim 34, wherein said frame check sequence is used to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, echo-canceller, adapted gain device, and timing loop.

41. (Previously Presented) The apparatus as defined in claim 34, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.

42. (Previously Presented) A digital subscriber line (DSL) communication device, comprising:

a receiver means for developing a received signal;

a digital signal processor (DSP) means configured to perform layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal; and

means for using existing parameters of an adaptive device located within said receiver means if said frame check sequence indicates that said received signal contains errors.

43. (Previously Presented) The apparatus as defined in claim 42, wherein said DSL device operates in a multipoint environment.

44. (Previously Presented) The apparatus as defined in claim 42, wherein said DSL device operates in a half duplex environment.

45. (Previously Presented) The apparatus as defined in claim 42, wherein said DSL device operates in a full duplex environment.

46. (Previously Presented) The apparatus as defined in claim 42, wherein said DSL device operates in an asymmetrical duplex environment.

47. (Previously Presented) A method for updating adaptive parameters in a digital subscriber line (DSL) communication device, comprising the steps of:

developing, in a receiver, a received signal;

performing, in a digital signal processor (DSP), layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal; and

saving the adaptive parameters of an adaptive device located within said receiver, and calculated by said DSP, if said frame check sequence indicates that said received signal is error free.

48. (Previously Presented) The method as defined in claim 47, wherein said DSL device operates in a multipoint environment.

49. (Previously Presented) The method as defined in claim 47, wherein said DSL device operates in a half duplex environment.

50. (Previously Presented) The method as defined in claim 47, wherein said DSL device operates in a full duplex environment.

51. (Previously Presented) The method as defined in claim 47, wherein said DSL device operates in an asymmetrical duplex environment.

52. (Previously Presented) The method as defined in claim 47, wherein said step of saving the adaptive parameters of an adaptive device located within said receiver occurs in layer one of the OSI seven layer model.

53. (Previously Presented) The method as defined in claim 47, further comprising the step of using said frame check sequence to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, an echo-canceller, an adaptive gain device, and a timing loop.

54. (Previously Presented) The method as defined in claim 47, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.

55. (Previously Presented) A method for updating adaptive parameters in a digital subscriber line (DSL) communication device, comprising the steps of:

developing, in a receiver, a received signal;

performing, in a digital signal processor (DSP), layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal; and

using existing parameters of an adaptive device located within said receiver if said frame check sequence indicates that said received signal contains errors.

56. (Previously Presented) The method as defined in claim 55, wherein said DSL device operates in a multipoint environment.

57. (Previously Presented) The method as defined in claim 55, wherein said DSL device operates in a half duplex environment.

58. (Previously Presented) The method as defined in claim 55, wherein said DSL device operates in a full duplex environment.

59. (Previously Presented) The method as defined in claim 55, wherein said DSL device operates in an asymmetrical duplex environment.

60. (Previously Presented) A digital subscriber line (DSL) communication device, comprising:

a receiver for developing a received signal; and

a digital signal processor (DSP) configured to perform OSI layer one processing and configured to perform OSI layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal, wherein said layer two error detection occurs in the DSP.

61. (Previously Presented) The apparatus as defined in claim 60, wherein said DSL device operates in a multipoint environment.

62. (Previously Presented) The apparatus as defined in claim 60, wherein said DSL device operates in a half duplex environment.

63. (Previously Presented) The apparatus as defined in claim 60, wherein said DSL device operates in a full duplex environment.

64. (Previously Presented) The apparatus as defined in claim 60, wherein said DSL device operates in an asymmetrical duplex environment.

65. (Previously Presented) A method for updating adaptive parameters in a digital subscriber line (DSL) communication device, comprising the steps of:

developing, in a receiver, a received signal;

performing, in a digital signal processor (DSP), OSI layer one processing; and

performing, in the DSP, layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal, wherein said step of performing layer two error detection occurs in the DSP.

66. (Previously Presented) The method as defined in claim 60, wherein said DSL device operates in a multipoint environment.

67. (Previously Presented) The method as defined in claim 60, wherein said DSL device operates in a half duplex environment.

68. (Previously Presented) The method as defined in claim 60, wherein said DSL device operates in a full duplex environment.

69. (Previously Presented) The method as defined in claim 60, wherein said DSL device operates in an asymmetrical duplex environment.

70. (New) A communication device, comprising:

a receiver for developing a received signal; and

a digital signal processor (DSP), where said DSP comprises:

layer one logic configured to perform OSI layer one processing; and

frame check sequence logic configured to compute a frame check sequence (FCS) on each frame of said received signal, wherein the layer one logic has access to said frame check sequence.

71. (New) The apparatus as defined in claim 70, further comprising means for saving the adaptive parameters of an adaptive device located within said receiver, and calculated by said DSP, if said frame check sequence indicates that said received signal is error free.

72. (New) The apparatus as defined in claim 70, further comprising means for using existing parameters of an adaptive device located within said receiver if said frame check sequence indicates that said received signal contains errors.

73. (New) The apparatus as defined in claim 70, wherein said frame check sequence is used to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, echo-canceller, adapted gain device, and timing loop.

74. (New) The apparatus as defined in claim 70, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.

75. (New) A method in a communication device, comprising the steps of:

developing, in a receiver, a received signal;

performing, in a digital signal processor (DSP), layer two error detection by computing a frame check sequence (FCS) on each frame of said received signal; and

performing, in the DSP, OSI layer one processing using the frame check sequence.

76. (New) The method as defined in claim 75, further comprising the step of saving the adaptive parameters of an adaptive device located within said receiver and calculated by said DSP if said frame check sequence indicates that said received signal is error free.

77. (New) The method as defined in claim 75, further comprising the step of using existing parameters of an adaptive device located within said receiver if said frame check sequence indicates that said received signal contains errors.

78. (New) The method as defined in claim 75, further comprising the step of using said frame check sequence to calculate the adaptive parameters of a device chosen from the group consisting of an equalizer, an echo-canceller, an adaptive gain device, a and timing loop.

79. (New) The method as defined in claim 75, wherein said frame check sequence is used to adapt a receive margin level based on said received signal.